Gel Documentation Form and Worksheet

HLA-A\*31 (101.430-12/12u) Lot No: 4F2 Expiry Date: 2020-02-01

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Sample ID:\_\_\_\_\_\_\_\_\_\_\_\_\_\_

DNA Conc.(ng/ul):\_\_\_\_\_\_\_\_\_

Test Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Tested By:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Review Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Reviewed By:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Interpretation:\_\_\_\_\_\_\_\_\_\_ Failed lanes: \_\_\_\_\_\_\_\_\_\_\_ Comments:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

**Gel Picture**

|  |
| --- |
| PHOTO DOCUMENT |



‘ICB’ Internal Control Band,

‘AmpS’ Amplicon Size

**Notes:**

Product sizes are approximate. For detailed information, see the lot-specific Specificity Table and Interpretation Table.

This table is intended as a guide. For interpretation always use the Interpretation Table and/or Specificity Table.

HLA-specific PCR products shorter than 125 base pairs have a lower intensity and are less sharp than longer PCR products.

Primer mixes 10, 25 and 30 may have tendencies of unspecific amplifications.

Primer mixes 4 and 7 may weakly amplify the A\*34:01 allele.

Primer mix 14 may give rise to a lower yield of HLA-specific PCR product than the other HLA-A\*31 primer mixes

Primer mix 40 contains a negative control, which will amplify more than 95% of HLA amplicons as well as the amplicons generated by the control primer pairs matching the human growth hormone gene. HLA-specific PCR product sizes range from 75 to 200 base pairs and the PCR product generated by the HGH positive control primer pair is 430 base pairs







**1**HLA-A\*31 alleles in bold lettering are listed as confirmed alleles on the on the IMGT/HLA web page [www.ebi.ac.uk/imgt/hla](http://www.ebi.ac.uk/imgt/hla), release 3.28.0, September 2017.

**2**Alleles that have been deleted from or renamed in the official WHO HLA Nomenclature up to and including the last IMGT/HLA database release can be retrieved from web page <http://hla.alleles.org/alleles/deleted.html>.

**3**The following HLA-A\*31 primer mixes have two or more product sizes:

|  |  |  |  |
| --- | --- | --- | --- |
| Primer Mix | Size of spec. PCR product | Amplified HLA-A\*31 alleles | Other amplified HLA-A alleles |
|  **2** | 80 bp215 bp | \*31:67-31:68\*31:02, 31:07-31:08, 31:91, 31:109 | \*02:41, 02:80, 02:117, 02:289:01, 02:304, 02:454, 23:45, 24:62, 26:10, 32:28, 32:66, 33:32:01\*02:243:01-02:243:02, 24:82, 29:48, 33:08, 33:53 |
|  **5** | 120 bp 285 bp | \*31:26, 31:38\*31:03 | \*02:660, 03:184, 32:36\*01:143, 11:43, 29:66, 33:13, **C\*07:449** |
|  **6** | 130 bp 165 bp | \*31:39, 31:54\*31:05 | \*33:07\*23:03:01, 24:21:03, 24:208, 29:03, 29:33, 32:13, 33:10 |
|  **8** | 155 bp 220 bp | \*31:24, 31:27\*31:09 | \*11:01:28, 29:67, 32:26:02, 33:61, 33:127 |
| **10**  | 115 bp 160 bp | \*31:41\*31:11, 31:56 | \*02:24:02, 02:507, 24:21:03, 24:208, 29:33, 29:51, 29:80, 32:02, 32:06, 33:94 |
| **11** | 135 bp 210 bp | \*31:26\*31:12, 31:60N | \*02:660, 03:184, 32:36\*02:490N, 02:516N, 02:526, 03:269N, 32:89 |
| **14** | 150 bp 220 bp | \*31:24\*31:14N | \*11:01:28, 29:67, 32:26:02, 33:61 |
| **15** | 150 bp 225 bp | \*31:25\*31:15 | \*32:26:01 |
| **16** | 80 bp 165 bp | \*31:46\*31:16 | \*29:12, 29:92, 33:58 |
| **17** | 160 bp 235 bp | \*31:25, 31:40\*31:17 | \*32:26:01 |
| **18** | 155 bp200 bp | \*31:43, 31:62\*31:18 | \*02:408, 02:590\*23:43 |
| **19** | 110 bp185 bp | \*31:19\*31:72 | \*02:380, 03:52, 30:109 |
| **21** | 75 bp155 bp180 bp215 bp | \*31:35\*31:43, 31:62\*31:21\*31:01:02:03N | \*01:07\*02:408, 02:590\*01:07, 02:185, 02:601, 30:55 |
| **22** | 80 bp155 bp 190 bp | \*31:71\*31:27, 31:55\*31:22 | \*02:327\*33:127 |
| **23** | 80 bp165 bp 200 bp | \*31:71\*31:40\*31:23 | \*02:327 |
| **24** | 150 bp180 bp 220 bp | \*31:55\*31:81\*31:28, 31:89, 31:115 | \*02:104\*03:205, 11:43, 33:125, 68:29 |
| **25** | 135 bp165 bp 245 bp | \*31:29\*31:56\*31:59 | \*02:507, 23:03:01, 23:83, 24:21:03, 24:208, 29:07, 32:89 |
| **26** | 130 bp185 bp | \*31:30, 31:39, 31:97\*31:72 | \*02:507, 29:28, 29:79, 32:10, 33:94, **B\*07:02:40, C\*02:02:15, C\*04:175** |
| **27** | 85 bp500 bp | \*31:31, 31:67-31:68 | \*02:41, 02:80, 02:117, 02:289:01, 02:304, 02:454, 23:45, 24:62, 26:10, 32:28, 32:66, 33:32:01\*02:72, 02:275, 68:156 |
| **28** | 110 bp 175 bp 205 bp | \*31:38\*31:32\*31:60N | \*02:490N, 02:516N, 03:269N |
| **29** | 115 bp 180 bp 275 bp | \*31:48\*31:44, 31:81\*31:36 | \*02:140, 26:99, 33:15\*02:104 |
| **30** | 160 bp185 bp 245 bp | \*31:34\*31:87\*31:33 |  |
| **31** | 75 bp120 bp | \*31:37\*31:41, 31:54 | \*02:24:02, 02:507, 24:21:03, 24:208, 29:33, 29:51, 29:80, 32:02, 32:06, 33:07, 33:94 |

**4**The A\*31:44 and the A\*33:15 alleles can be distinguished by the different sizes of the specific PCR products generated by primer mix 29.

The A\*31 primer set cannot separate the A\*31:89 from the A\*33:125 allele. These alleles can be distinguished by the HLA-A low resolution and/or HLA-A\*33 kits.

**5**The following HLA-A\*31 alleles can be distinguished by the different sizes of the HLA-specific PCR product:

|  |  |  |  |
| --- | --- | --- | --- |
| Alleles | Primer mix | Alleles | Primer mix |
| A\*31:01:02:03N, 31:35 | 21 | A\*31:36, 31:48 | 29 |
| A\*31:16, 31:46 | 16 | A\*31:44, A\*33:15 | 29 |
| A\*31:29, 31:59 | 25 |